

#### ABSTRACT OF THE DISCLOSURE

A method and apparatus for continuously presenting a sample from a stream of particulate material which contains crystalline substances and for effectively continuously analysing the sample by X-ray diffraction are provided. An extracted sample flow is fed onto a continuously moving carrier and its surface smoothed and flattened for X-ray diffraction patterns to be detected and analysed to provide a compositional analysis for the crystalline substances. The sample is continuously removed from the carrier prior to further sample being fed onto the carrier. The invention is particularly applicable for phase composition analysis of cement and cement clinker and provides an effectively continuous analysis substantially in real time in contrast to prior art laboratory analyses of discrete samples.

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